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BOOK REVIEW

The Greatest Memory Teacher Ever

Memory's Ghost: The Nature of Memory and The Strange Tale of Mr. M., Philip J. Hilts, New York: Simon & Schuster, 1995. 253pp, ISBN 0-684-80356-9, US\$12 (soft cover).

Any instructor who began teaching about memory in 1954 and was still making valuable contributions to the field more than 40 years later would certainly have a great sense of accomplishment. However, such a sense of professional achievement presupposes knowledge of the service one is performing; and the instructor who is the subject of this book—the amnesic patient widely known as H.M.—has no such awareness.

Although psychologists and neurologists have been familiar with the case of H.M. for years, this small volume makes his story—and what it can teach us about the functioning of memory—accessible to a much wider audience. Hilts has done a good job of piecing together H.M.'s early life, in the absence of any living relatives and all but a few written records. He recreates the life of a very normal youth in the 1930s and 1940s; normal, that is, until H.M.'s first epileptic seizure. He still recalls this first seizure, which occurred on his sixteenth birthday: “‘What a birthday present!’ he says, humor and dismay struggling together in his tone” (p. 87).

In 1954, after several other treatments for the epilepsy had failed, H.M. (at age 27) had a bilateral medial temporal lobectomy, in the hope that it would alleviate his seizures. A neurosurgeon removed large sections of both temporal lobes, as well as much of the limbic system, including the amygdala and hippocampus. More detailed, clinical descriptions of the surgical procedure and its aftermath exist elsewhere (e.g. Scoville and Milner, 1957; Ogden and Corkin, 1991); but a more human, chilling description of the procedure—which sounds simply barbaric—is hard to imagine.

In addition to H.M., the reader becomes acquainted with a number of other actors in this drama, including William Scoville, the surgeon, and Brenda Milner and Suzanne Corkin, the researchers who have done the most to convey the lessons learned from H.M. to the neuropsychological community. Scoville, in particular, is worthy of a book unto himself. A wealthy, daredevil surgeon who founded the World Neurology Society, he specialized in spinal cord surgery and lobotomies. Psychosurgery was all the rage at the time, and Scoville reported in scientific papers doing at least 300 lobotomies, mostly on hospitalized psychotics. By 1953, however, it was clear that lobotomy was not that successful and had severe side effects. Scoville then looked to the limbic system and, based on little more than a hunch, began cutting out parts of it in a number of patients—one of whom was H.M.—with drastic consequences. To his credit, Scoville did publicly acknowledge his error; he also devoted much time to studying the procedure's effects on H.M. (e.g. Scoville and Milner, 1957) and asked other surgeons not to perform it.

Since the surgery, H.M.—who was still alive when the book was written—suffers from a pervasive anterograde amnesia. In the author's words: “From H.M.'s moment in surgery onward, every conversation for him was without predecessors, each face vague and new. Names no longer rose to the surface, neither histories nor endearing moments came any more. Reassurances of welcome had to be sought every moment from each look in every pair of eyes. The opening of that dark gap was for him cruel, but in science it was nevertheless the cracking of a door. His predicament began an era in the study of human memory” (p. 100). In particular, H.M. has contributed greatly to our understanding of the neuroanatomy of memory

and implicit memory. For example, he demonstrates priming on word-stem completion tasks and improvement on procedural tasks such as mirror-tracing (Milner, 1970; Ogden and Corkin, 1991), while unable to recall having encountered the tasks previously.

The author conveys eloquently what life for H.M. is like. For example, he asks him how it feels to search around when people ask him things. H.M.'s answer is "Well, in a way, you're still wondering to yourself, about things, and what has been. You try and think of everything that's going on, or has been. You can't remember that really at all. It's like waking up, sort of like waking up in the world. You're waking, trying to push things together yourself, reaching back. And you wonder at times just, well, what it is and what it isn't" (p. 239). H.M. also presents several examples to illustrate that despite his pervasive anterograde amnesia, H.M.'s personality has remained intact, including his sense of humor. By all accounts, he is almost unfailingly pleasant to deal with and eager for reassurance, despite being subjected to a never-ending battery of psychological tests.

The reader also learns something of the author's own life, as he interweaves H.M.'s story with the story of his own reflections on memory and memories of his wife—who, like H.M., had her life drastically altered by a surgeon's presumptuous error. Although this facet of the book is well written and even moving at times, these frequent digressions are somewhat distracting, when what the reader really wants (at least this reader) was to learn more about H.M.

This book would be quite suitable as a supplemental text in an undergraduate cognitive psychology or memory course, where it would enable H.M. to reach—and teach—still more people. More advanced students and instructors are likely to find the passages on memory functioning rudimentary, but that detracts only slightly from the author's fascinating and very human portrait of a man whose life has been more instructive than he can ever know. H.M. would doubtless agree with Ogden and Corkin's (1991) assessment of H.M.'s contributions to the field: "For more than 30 years he has put enormous amounts of effort and time into memory research, and the fact that he has no conscious memory of this work does not in any way detract from the debt we owe him" (pp. 211–212).

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